

Summary of work done

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Status of PSP projects

Machine	Description	People	Status
Pre-Acc	Improve neutralization in LEBT with N or Xe.	Dan	Should have better results this time because of mass flow controller that we did not have previously.
Pre-Acc	Laser collimation of head/tail of longitudinal beam. (LDRD)	Dave	Today's talk
Pre-Acc/Linac	Simulation of PreAcc + Linac	Valeriy/Kiyomi/ Dan	There are vertical exit angles from both source and RFQ. Dan is working on putting permanent magnets into the source to correct this angle. For RFQ, there is not enough dipole strength, but Valeriy's calculations say that quads should also be able to straighten out the beam.
Pre-Acc/Linac	Checking efficiency with increased current in LEBT corrector	Kiyomi/Dan/Pat	Increased source corrector strength increased transmission efficiency. Dan will put in permanent magnets into the source to reduce ~8 deg angle of beam coming out of source.
Booster	Flat injection porch	Bill/Kiyomi/ George/Howie/ Chris	Cards were made to improve jitter between Booster ramp and events. Installed. Switch to new system soon ...
Booster	Adiabatic capture	Chandra	Analysis continues ... talk next time.
Booster	2 nd harmonic	Robyn/Tan	Test stand is nearly done!
Booster	Wide bore cavities	Salah/Matt	Welding to start this week
Booster	2 stage collimators	Valeriy/ Chandra	Had meeting on 12 Dec 2018 to decide on the length of the primary collimator. Work to see amount of shielding needed for tritium control in sump water.
Booster	Injection girder	Dave	First orbump design to be completed in January. This drives size of D magnets.
Booster	Garnet loss improvements	Robyn/Tan	Gave talk on 11 Dec 2018 to LDRD committee. Waiting for decision ...
Booster	Mode 2 longitudinal damper	Nathan	Requires new broadband cavity. Also need specs. (benefits PIP1+)
LLRF	GMPS machine learning (get rid of reference magnet)	Bill	Gave talk on 12 Dec 2018 to LDRD committee. Waiting for decision
LLRF	Complete DDS upgrade, paraphase controller	Brian/Ed	Ed is learning the system.
LLRF	Phase feedback	Brian/Ed/Bill/ Tan/Valeri/Craig	Machine studies on 18 Dec 2018 show possible problems with phase feedback. Possible sign error etc. Investigating ...

House keeping

Machine	Description	i/c	Comments
Linac	7835	Kiyomi/Tan	Budget meeting on 11 Dec 2018. HQ has no objections to buying 5 rebuilds. Final budget still not settled.
Linac	Klystron	Kiyomi/Bill/ Tan	Bill as contacted L3 on 14 Dec. No reply from L3.
Booster	BPM	Salah/Peter	Getting closer ... still some timestamp errors that are intermittent. B40 works. Snapshot BPM not working.